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Article (Published Version)

Lattimer, Val, Smith, Helen, Hungin, Pali, Glasper, Alan and George, Steve (1996) Future provision of out of hours primary medical care: a survey with two general practitioner research networks. *BMJ*, 312 (7027). pp. 352-356. ISSN 1759-2151

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Future Provision Of Out Of Hours Primary Medical Care: A Survey With Two General Practitioner Research Networks

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Source: *BMJ: British Medical Journal*, Vol. 312, No. 7027 (Feb. 10, 1996), pp. 352-356

Published by: [BMJ](#)

Stable URL: <http://www.jstor.org/stable/29730600>

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Future provision of out of hours primary medical care: a survey with two general practitioner research networks

Val Lattimer, Helen Smith, Pali Hungin, Alan Glasper, Steve George

Abstract

Objective—To ascertain general practitioners' views about the future provision of out of hours primary medical care.

Design—Self completing postal questionnaire survey.

Setting—Wessex and north east England.

Subjects—116 general practitioners in the Wessex Primary Care Research Network and 83 in the Northern Primary Care Research Network.

Main outcome measures—Intention to reduce or opt out of on call; plans for changing out of hours arrangements; the three most important changes needed to out of hours care; willingness to try, and perceived strengths and limitations of, three alternative out of hours care models—primary care emergency centres, telephone triage services, and cooperatives.

Results—The overall response rate was 74% (Wessex research network 77% (89/116), northern research network 71% (59/83)). Eighty three per cent of respondents (123/148) were willing to try at least one service model, primary care emergency centres being the most popular option. Key considerations were the potential for a model to reduce time on call and workload, to maintain continuity of care, and to fit the practice context. Sixty one per cent (91/148) hoped to reduce time on call and 25% (37/148) hoped to opt out completely.

Conclusion—General practitioners were keen to try alternative arrangements for out of hours care delivery, despite the lack of formal trials. The increased flexibility in funding brought about by the recent agreement between the General Medical Services Committee and the Department of Health is likely to lead to a proliferation of different schemes. Careful monitoring will be necessary, and formal trials of new service models are needed urgently.

Introduction

Demand for out of hours primary medical care in the United Kingdom is increasing.¹ Night visits have reportedly increased fivefold over the past 25 years² and in one study increased by 33% during 1989-90.³ The cost of night visits in 1992-3 was £70m,² which did not include the 47% of first contact care provided by accident and emergency departments.⁴⁻⁶

Many ways of tackling the out of hours "crisis" have been suggested, including new service models such as primary care emergency centres and general practitioner cooperatives, but until now financial barriers have inhibited their development. A recent agreement between the Department of Health and the BMA's General Medical Services Committee introduced specific costing of the out of hours component of general practice, removed the financial

disincentives which were hindering progress, and opened up the possibility for various schemes to be implemented.⁷

OUT OF HOURS CARE BY TELEPHONE

Marsh *et al* reported that 59% of all out of hours calls to two general practitioners over a year were managed by telephone advice alone,⁸ and in Canada, the United States, and Scandinavia nurse led telephone triage services are well established.⁹⁻¹¹ There have also been isolated examples of nurse led primary care helplines in Britain,¹² but these have not been subject to formal evaluation. We wished to investigate the possible roles of nurses and health visitors in out of hours primary care, and in particular the potential for a telephone triage service. We ascertained general practitioners' views on a telephone triage service to compare them with their views on other models, and to identify practices which might be willing to work with us in a trial of such a service.

Subjects and methods

We surveyed practising general practitioners in two primary care research networks between July 1994 and February 1995. At the time the Wessex Primary Care Research Network comprised 180 general practitioners throughout the former Wessex Regional Health Authority. The Northern Primary Care Research Network included 83 practising general practitioners in the former Northern Regional Health Authority. Membership of both networks is multi-disciplinary, though general practitioners are in the majority.

We designed a self completing postal questionnaire, which we field tested in a small local sample of general practitioners.¹³ The questionnaire was in three sections. The first, for completion by the practice manager, asked for practice details, including patient demography, number of full and part time partners, and the type of community served (urban or non-urban). The second section, addressed to the individual general practitioner, asked for age, sex, number of years as a principal, aspirations to reduce or opt out of on call, use of deputising services, current on call arrangements, and plans for the future provision of out of hours care. Respondents were also asked to state the three most important changes that they thought should be made to contemporary arrangements for out of hours primary medical care. The third section sought the views of respondents on three approaches to providing out of hours care—namely, primary care emergency centres, cooperatives, and telephone triage services. Questions were preceded by a brief description of each service (box 1). Respondents were asked whether they would be willing to try the services described, to identify the strengths and limitations of each service, and to

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BMJ 1996;312:352-6

Box 1—Alternative out of hours services described in survey

• Primary care emergency centres

A primary care emergency centre would be established in a practice or health centre and would serve a number of practices out of hours. It would be staffed by general practitioners on a rota and provide emergency out of hours care to patients who had been invited to attend the centre by their on call doctor. The centres would be equipped to deal with most emergencies.

• Cooperatives

Cooperatives enable general practitioners to join together to share on call. They are formally constituted and members pay a subscription fee. A cooperative of 40 or more doctors is usually viable, though cooperatives can vary from 15 to 200 doctors, and surgery premises are sometimes used for evening appointments.

• Telephone triage service

A centralised telephone triage service would serve a number of practices out of hours. It would be staffed by nurses specially trained in telephone consultation. Patients calling their general practitioner would first speak to a nurse, who would assess calls based on the history given by the caller and establish whether contact with a doctor was necessary either out of hours or next day and would transfer the call to the doctor in those cases assessed as urgent. The nurse could give health advice based on previously agreed protocols to those patients for whom contact with the doctor was not indicated. If an emergency 999 response was needed the nurse would activate this on the caller's behalf.

indicate how much they would be prepared to pay for a telephone triage service.

Data generated by hypothetical questions can be criticised: expressed willingness to try a service may not materialise given changed circumstances. Such data do, however, say something about attitude to change, which is an important precursor to action. We needed to gauge whether the concept of a telephone triage service was broadly acceptable to general practitioners, as there would be little point in establishing and evaluating an unacceptable service. Questionnaires, plus a single reminder after three weeks, were mailed to 116 of the 180 Wessex general practitioners who were selected randomly from the Wessex research network membership list and to all 83 practising general practitioners from the northern research network.

DATA COLLECTION AND ANALYSIS

Responses to closed questions were analysed with the Epi-Info epidemiological analysis program.¹⁴ Responses to open questions were tabulated in their entirety for manifest content analysis.¹⁵ This method entailed close reading and rereading of the text to identify persistent words and phrases. Categories were drawn from the data and common themes derived.

In order to see how well our sample represented most general practitioners we compared them with data drawn from various comparator sources in terms of age, sex, whether or not they were a senior partner in practice, and whether or not they were in possession of the MRCGP. Age and sex for both networks were compared with the age and sex distribution of respondents to the 1992 Electoral Reform Ballot Services survey of general practitioners.¹⁶ Proportions of senior partners in our two networks were compared with figures obtained for the former Wessex health region and the former Northern health region from the Institute of Health Services Management.¹⁷ The Royal College of General Practitioners could provide data only on current paying members or fellows.¹⁸ In order to calculate a national figure for all those holding the MRCGP examination we inflated this figure by 19.5%

based on data from a study in the Trent region which looked at current and past membership status of a sample of general practitioners.¹⁹ The proportions of respondents possessing the MRCGP in our samples were compared with the ratio of our adjusted national MRCGP figure over the total number of general practitioner principals in Britain in 1994 (31 770; BMA General Medical Services Committee, personal communication).

Results

Completed questionnaires were received from 89 of 116 (77%) Wessex and 59 of 83 (71%) northern general practitioners. One Wessex respondent removed the personal identification number from the questionnaire and entered no personal details but completed other sections of the questionnaire.

Most of the respondents were male (123/147; 84%), in full time practice (128; 87%), and aged 44 or under (103; 70%). The mean number of years as a principal was 11 in both groups. Tables 1-4 show the distri-

Table 1—Comparison of age distribution between Electoral Reform Ballot Services respondents, Wessex research network respondents, and Northern research network respondents

Respondents	Age (years)		Total
	≤ 44	≥ 45	
Electoral Reform Ballot Services	15 320	9794	25 114
Wessex research network	59	29	88†
	$\chi^2=1.10$; $P=0.29$		
Northern research network	44	15	59
	$\chi^2=4.01$; $P=0.05$		

†One Wessex research network respondent removed personal identification number from questionnaire and entered no personal details. This respondent is therefore excluded.

Table 2—Comparison of sex distribution between Electoral Reform Ballot Services respondents, Wessex research network respondents, and Northern research network respondents

Respondents	Male	Female	Total
Electoral Reform Ballot Services	17 797	6653	24 450
Wessex research network	78	10	88†
	$\chi^2=10.35$; $P=0.001$		
Northern research network	45	14	59
	$\chi^2=0.21$; $P=0.65$		

†Table excludes respondent who removed personal identification number from questionnaire and entered no personal details.

Table 3—Comparison of partnership status between Wessex research network respondents and general practitioners in Wessex Region, and between Northern research network respondents and general practitioners in Northern Region. (Data for comparison gathered from the Hospitals and Health Services Yearbook¹⁷)

Respondents	Senior	Non-senior	Total
Wessex research network	19	69	88†
Wessex region	531	1846	2377
	$\chi^2=0.00$; $P=0.97$		
Northern research network	12	47	59
Northern region	568	1103	1671
	$\chi^2=4.17$; $P=0.04$		

†Table excludes respondent who removed personal identification number from questionnaire and entered no personal details.

Table 4—Comparison of possession of MRCGP between Wessex research network respondents, northern research network respondents, and general practitioners throughout Britain. (Data for comparison gathered from membership data of the Royal College of General Practitioners adjusted to include ex-members^{18 19})

Respondents	MRCGP	No MRCGP	Total
United Kingdom	17 517	14 253	31 770†
Wessex research network	50	38	88†
	$\chi^2=0.04$; $P=0.83$		
Northern research network	50	9	59
	$\chi^2=19.77$; $P<0.0001$		

†Table excludes respondent who removed personal identification number from questionnaire and entered no personal details.

butions of age and sex, partnership status, and MRCGP status of Wessex and northern respondents and comparator populations. The only difference between the Wessex sample and general practitioners in general was that there were fewer women in the Wessex network than expected. On the other hand, northern research network respondents were a younger group of doctors, less senior in their practice, and with a higher level of formal educational achievement. The proportion of women in the northern research network, however, was higher than in Wessex and did not differ from national figures.

Table 5 shows the distribution of practices by type and shows that there were more urban and fewer non-urban practices in the north east of England than in Wessex.

Most general practitioners (59/89 (66%; 95% confidence interval 55% to 76%) in Wessex and 32/59 (54%; 41% to 67%) in the northern research network) hoped to reduce their on call commitment, and a substantial proportion hoped to opt out of their on call commitments completely (Wessex 22/89 (25%; 16% to 35%), northern research network 15/59 (25%; 15% to 38%)). There were no significant differences between the responses of urban and non-urban general practitioners to these questions. Thirty nine of 62 urban general practitioners wished to reduce their on call commitment as compared with 38 of 63 non-urban general practitioners ($\chi^2=0.01$; $P=0.9$). Seventeen of 62 urban general practitioners hoped to opt out completely as compared with 12 of 63 non-urban general practitioners ($\chi^2=0.8$; $P=0.37$).

Deputising services were used by 27 of 89 (30%; 21% to 41%) and 19 of 59 (32%; 21% to 46%) general practitioners. A significantly higher proportion of urban than non-urban general practitioners used

deputising services, probably reflecting availability (urban 34/62, non-urban 6/63; $\chi^2=27.44$, $P<0.0001$). In the Northern region there is a long tradition of deputising services in the main conurbations of Newcastle and Teesside. In Wessex deputising services are available in Hampshire and Dorset but not in Wiltshire or the Isle of Wight.

WILLINGNESS TO TRY NEW SERVICE MODELS

Seventy eight of 89 (88%; 79% to 93%) Wessex general practitioners and 45 of 59 (76%; 63% to 86%) northern general practitioners were willing to try at least one of the service models described. Over half were willing to try two or more services (57/89 (64%; 53% to 74%), 33/59 (56%; 42% to 69%)). Tables 6-8 show responses for individual models. The least favoured model was the general practitioner coop-

Table 5—Practice type expressed in response to "Please describe the kind of community your practice serves." Figures are numbers (percentages) of practices. (Percentages refer to respondents to this question only)

Practice type	Wessex research network respondents (n=89)	Northern research network respondents (n=59)
Urban	31 (43)	30 (58)
Non-urban (rural or mixed)	41 (57)	22 (42)
Missing	17	7
Total	89	59

Table 6—Responses to closed question about willingness to try a primary care emergency centre. Figures are numbers (percentages) of respondents [95% confidence intervals in square brackets]

Willing to try	Wessex research network respondents	Northern research network respondents
Yes	57 (64) [53 to 74]	36 (61) [47 to 74]
No	30 (34) [24 to 45]	21 (36) [24 to 49]
Missing	2	2
Total	89	59

Table 7—Responses to closed question about willingness to try a cooperative. Figures are numbers (percentages) of respondents [95% confidence intervals in square brackets]

Willing to try	Wessex research network respondents	Northern research network respondents
Yes	46 (52) [41 to 62]	23 (39) [27 to 53]
No	28 (31) [32 to 42]	23 (39) [27 to 53]
Already a member	2 (2) [0.25 to 8]	4 (7) [2 to 17]
Missing data	13	9
Total	89	59

erative. Boxes 2-4 list themes derived from grouped qualitative data on the suggested service models.

Fifty three per cent (31/59) of northern general practitioners would pay a minimum of £1000 per 1000 patients yearly for a telephone triage service, including some who did not indicate a willingness to try it (table 8). This may indicate preference for an established service.

IMPORTANT CHANGES NEEDED

Box 5 shows examples of general practitioners' perceptions of the most important changes needed to

Box 2—General practitioners' perceived strengths and limitations of a primary care emergency centre derived from manifest content analysis

Strengths

- Better facilities and equipment in a centre
- Time on call, night visits, and travelling reduced
- Patient effort and responsibility required to attend
- Resources centralised
- General practitioner stress reduced

Limitations

- Patients unable or unwilling to attend
- Organisational difficulties, especially in rural areas
- Inappropriate use as a drop in centre encouraged
- Doctor-patient relationship diluted
- Night visits would not be replaced by a centre

Table 8—Responses to closed question about willingness to pay for and try a telephone triage service. Figures are numbers (percentages) of respondents [95% confidence intervals in square brackets]

	Wessex research network respondents	Northern research network respondents
Willing to pay for service		
Yes	37 (42) [31 to 52]	31 (53) [39 to 66]
No	52 (58) [48 to 69]	28 (47) [34 to 61]
Total	89	59
Willing to try service		
Yes	50 (56) [45 to 67]	26 (44) [31 to 58]
No	38 (43) [32 to 54]	32 (54) [41 to 67]
Missing	1	1
Total	89	59

the current arrangements for out of hours primary medical care. Responses centred on the need to make changes to financial arrangements, to the regulations which guide the provision of out of hours care, and to patient education.

Discussion

The new funding arrangements include a £45m development fund which will encourage the implementation of new schemes for out of hours care. But what is the evidence to support such schemes?

A recent survey found a standardised patient attendance rate at five primary care emergency centres of only 22%.²⁰ Most patients were not able or prepared to attend a central facility for primary care out of hours. The main reasons given by patients were lack of transport and being too ill to travel, concerns raised by respondents in our survey. The authors concluded that "a substantial cultural change in expectations of the delivery of out of hours care" is needed if primary care emergency centres are to be accepted by the public.²⁰ However, primary care emergency centres were the preferred option for general practitioners in our study.

Cooperatives were the least favoured option. Difficulties in establishing the service and in covering large geographical areas with increased workload when on call, lack of continuity of care, and issues surrounding differential night visit fees were all worries to general practitioners. Lack of start up funding was not the only factor inhibiting their establishment.

Consultation by telephone may have greater potential in Britain than has been realised. In 1992 only

Box 3—Summary of general practitioners' perceived strengths and limitations of a cooperative derived from manifest content analysis

Strengths

- Time on call reduced (if more intensive)
- Service provided by local general practitioners
- Cost effective
- Quality and continuity of care

Limitations

- Quality and continuity of care diminished
- Large area and number of patients
- Intensity of on call work
- Costs of providing the service
- Management difficult

Key messages

- Increasing demand for out of hours care is encouraging general practitioners to review their own arrangements
- Over 80% of general practitioners in two research networks were willing to try a new out of hours service for their practice—either a primary care emergency centre, a telephone triage service, or a cooperative; cooperatives were the least favoured option
- The most important changes needed to out of hours care concerned financial arrangements, regulations, and patient education
- Formal trials of new services are needed before the opportunity to collect baseline data is lost

7% of general practice consultations were by telephone,²¹ though access to a telephone was estimated as 91%²² and access to a doctor by telephone is reportedly the most important improvement to general practice services that patients would like to see.²³ However, whether the inevitable increase in demand for telephone consultations will be offset by a measurable

Box 4—Summary of general practitioners' perceived strengths and limitations of a telephone triage service derived from manifest content analysis

Strengths

- Unnecessary and inappropriate calls reduced
- Patients' needs for advice and education met
- Patient contacts with the general practitioner reduced
- General practitioner stress reduced
- Trained personnel available
- Costs reduced

Limitations

- Concerns about clinical responsibility and liability
- Might increase overall demand
- Need for training and protocol development
- Possible resistance from patients
- Difficulty in assessing or advising (or both) by telephone
- Costs increased

reduction in home visits and consultations in the surgery needs to be determined.

Research networks have been criticised because they represent a self selected group whose members are more interested in research and change than their peers. Against this must be weighed their advantage of ready access to a sampling frame which guarantees a quick response and a high response rate.²⁴ In our study northern research network respondents typified the stereotype of the younger, more highly qualified research network member. Wessex research network respondents, however, were fairly typical of general practitioners in Wessex with the exception of an underrepresentation of women. Wessex and northern general practitioners represent very different communities, the prevalence of deprivation and reported longstanding illness being much higher in the north.²⁵ Nevertheless, night visits at the higher rate were similar in the two regions in 1992-3, Wessex having a slightly higher rate²⁶—though night visits at the lower

Box 5—Examples of general practitioners' perceptions of most important changes needed to current arrangements for out of hours care

Financial

- Financial recognition of the burden of out of hours work
- Specific financial support for cooperatives and primary care emergency centres, in particular set up costs and infrastructure
- Payment of the higher night visit fees for all visits and payment for casualty work
- Modification of the current fee, which acts as a perverse incentive to encourage visiting after 10 pm
- Charge patients a small fee for out of hours medical care
- Fund out of hours care separately from general medical services and put out to tender
- Provision to allow doctors to contract out of out of hours work

Regulations

- Removal of responsibility to visit at home
- Introduce centre based primary care which patients attend and provide transport if necessary
- Screen all out of hours calls to prevent use of primary care centres as a drop in service
- Use nurse practitioners more for out of hours cover
- Ensure time off after a night on call
- General practitioner to decide if and where an emergency consultation should take place
- Ability to opt out of 24 hour care or remove 24 hour responsibility
- Encourage the development of local solutions and more flexibility in how care is organised
- Reduce the amount of night work for general practitioners

Patient education

- Education campaign by government and primary care to encourage more appropriate use of on call services
- Patient education—doctors do not mind attending emergencies
- A wide range of symptoms relate to mild, self limiting illness and can be managed by the patient during out of hours periods
- Patient education about symptoms—what is serious, what can wait; why it's better to be seen at day surgery; that most things have no cure
- Educate patients about an appropriate home medical kit (for example, a paediatric preparation of paracetamol)
- Education of patients not to abuse the service and to appreciate that a call is in addition to a full working day

rate were much higher in the Northern region, possibly reflecting greater demand or availability, or both, of deputising services. Given the differences between the two networks we might have expected their responses to be substantially different in our survey. In fact, they differed little.

Whether representative or not, our study discloses an enormous desire for change among general practitioners. Eighty three per cent of respondents were willing to try one of the service models described for their practice, though there is no evidence that any alternative model for out of hours care is any better. As Hallam and Cragg have pointed out, an uncoordinated growth of out of hours schemes can lead only to different standards of service,²⁷ and the mechanism

for monitoring new arrangements is not clear. There is now urgent need to conduct formal trials of new schemes to examine their impact on workload, standards of patient care, and cost effectiveness. The opportunity to collect baseline data is being lost as general practitioners facing increasing demands for out of hours care take steps to change their practice arrangements without the benefits of this evidence.

We thank the general practitioner members of the Wessex Primary Care Research Network and the Northern Primary Care Research Network for their help and Joan Dunleavy and Hilda O'Flanagan, network coordinators, for membership data. We also thank the Department of Health for its support. The views expressed are ours alone.

Funding: Department of Health.

Conflict of interest: None.

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(Accepted 4 January 1996)

Correction

Vocational training for general practice in inner London. Is there a dearth? And if so what's to be done?

An editorial error occurred in this article by Harris *et al* (13 January, p 97). On p 100 in the fourth paragraph of the discussion the proportion of inner London general practitioners who said they would consider working in London should have read 62% and the proportion of outer London registrars 16% (and not the other way round).